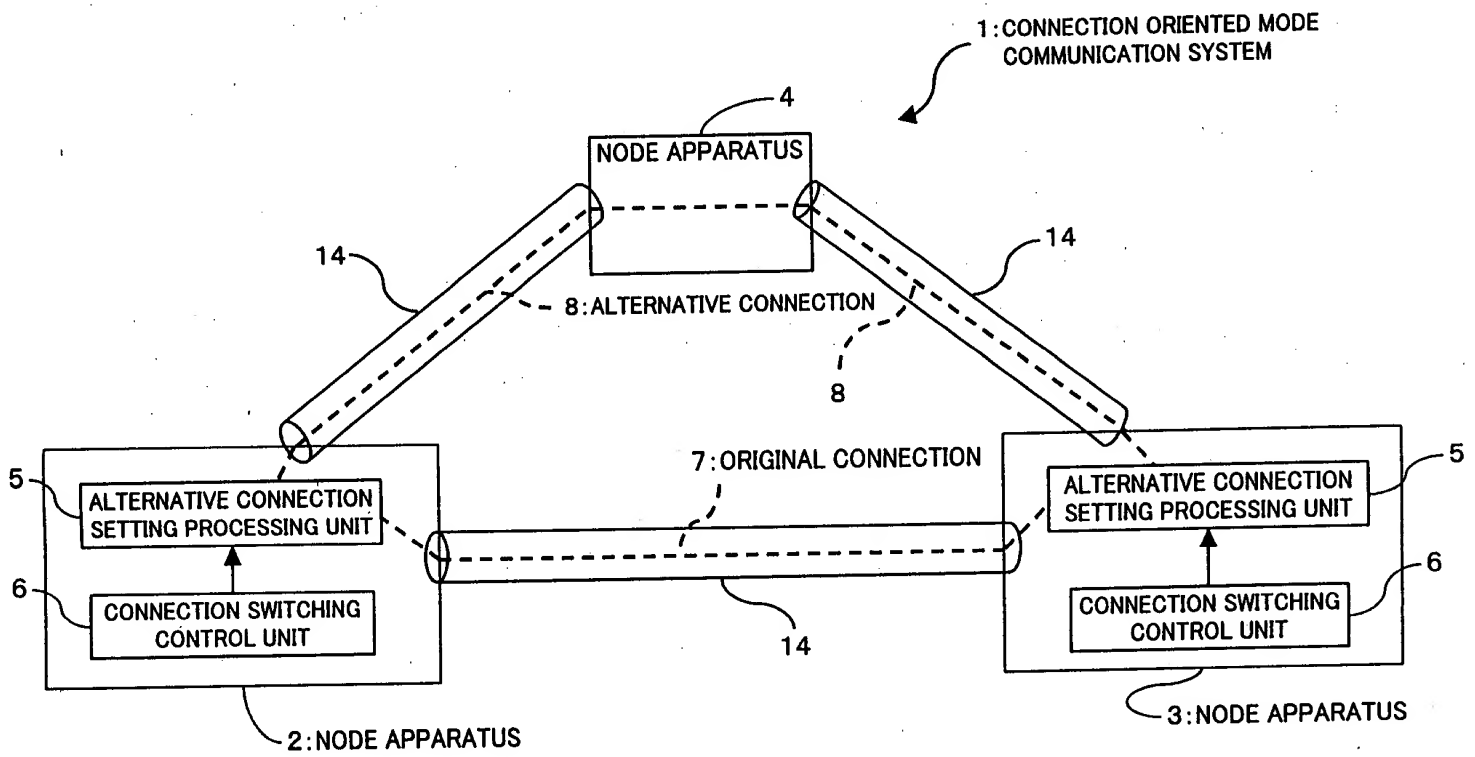
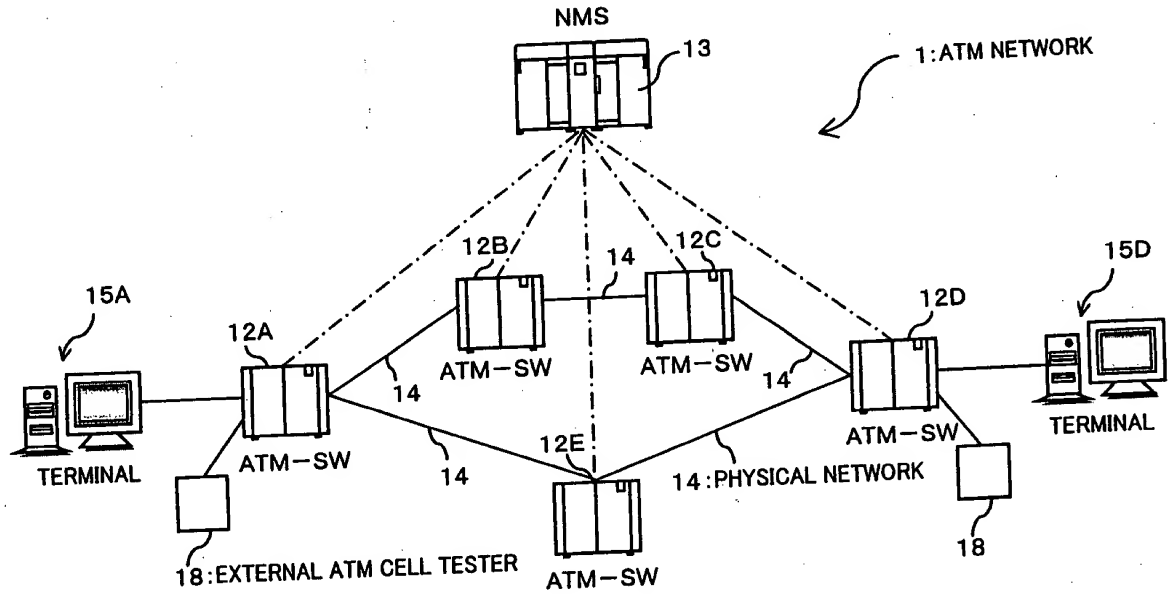
FOREIGN PUBLICATION

FIG. 1



EUROPEAN PATENT

FIG. 2



FUJITSU 1006050

FIG. 3

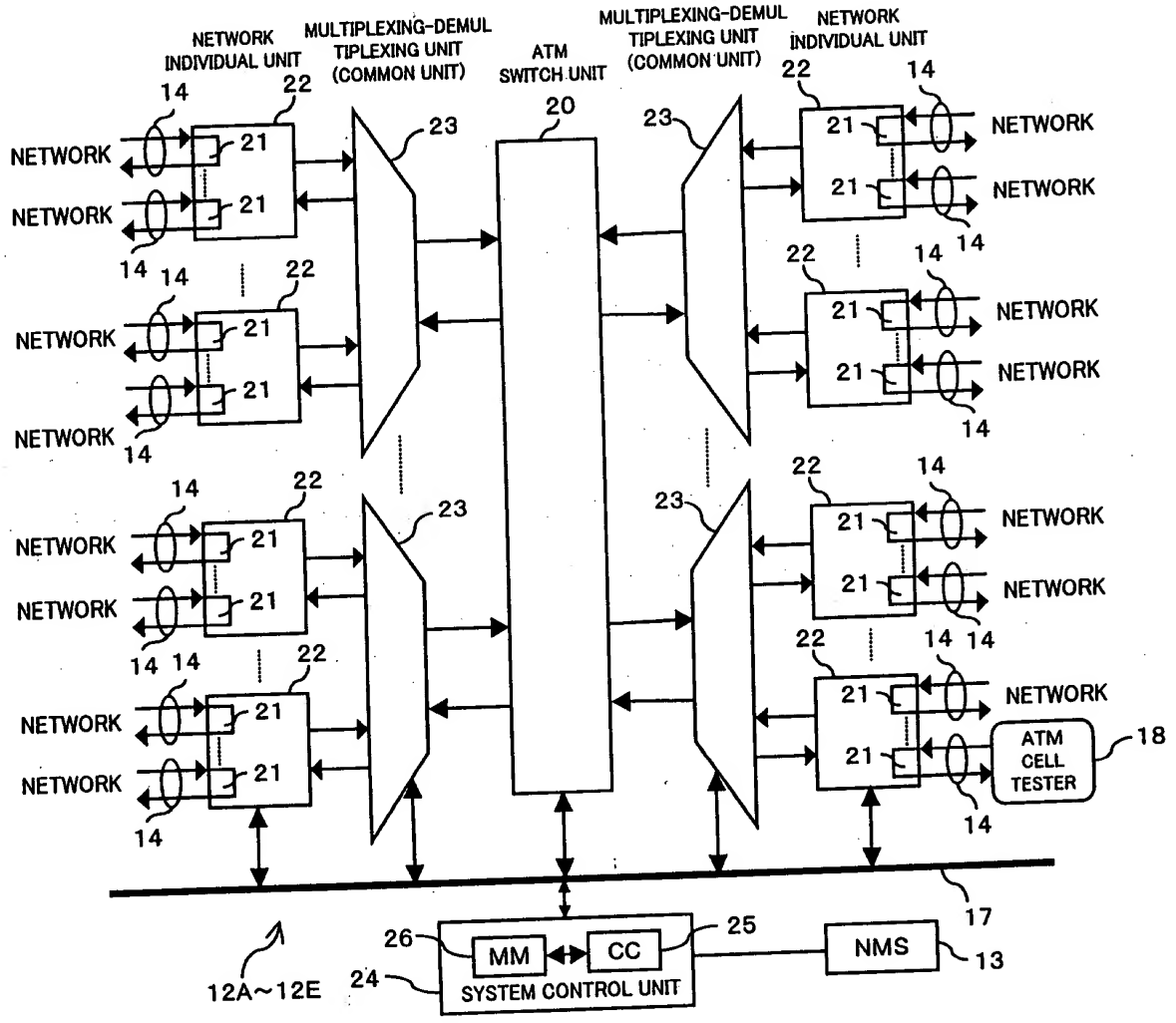


FIG. 4

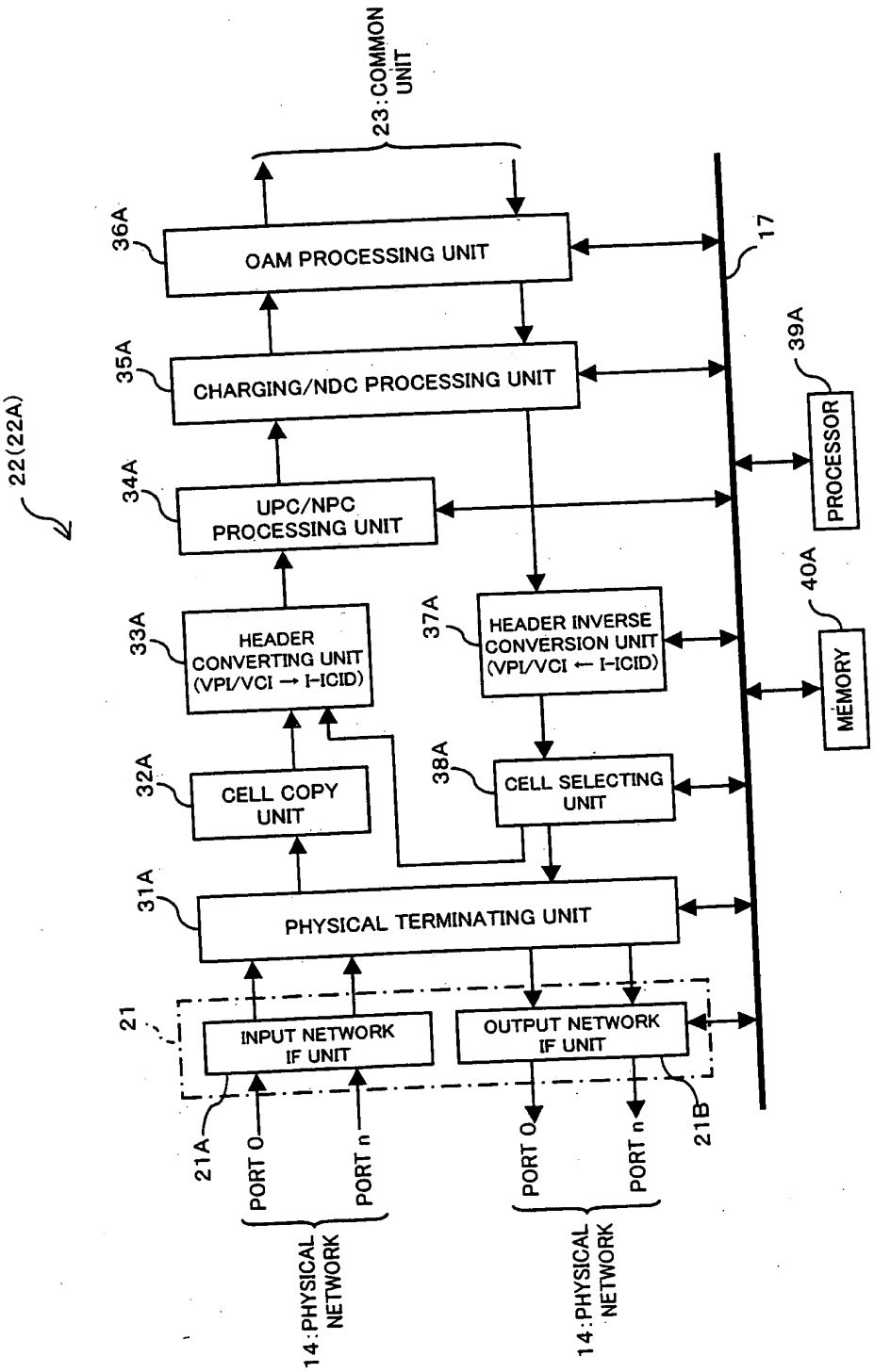

23:COMMON UNIT
36A
OAM PROCESSING UNIT
17
35A
CHARGING/NDC PROCESSING UNIT
39A
PROCESSOR
22(22A)
34A
UPC/NPC PROCESSING UNIT
40A
MEMORY
33A
HEADER CONVERTING UNIT (VPI/VCI → I-ICID)
37A
HEADER INVERSE CONVERSION UNIT (VPI/VCI ← I-ICID)
32A
CELL COPY UNIT
38A
CELL SELECTING UNIT
31A
PHYSICAL TERMINATING UNIT
21
INPUT NETWORK IF UNIT
OUTPUT NETWORK IF UNIT
21A
PORT 0
PORT n
21B
PORT 0
PORT n
14:PHYSICAL NETWORK
14:PHYSICAL NETWORK

FIG. 5

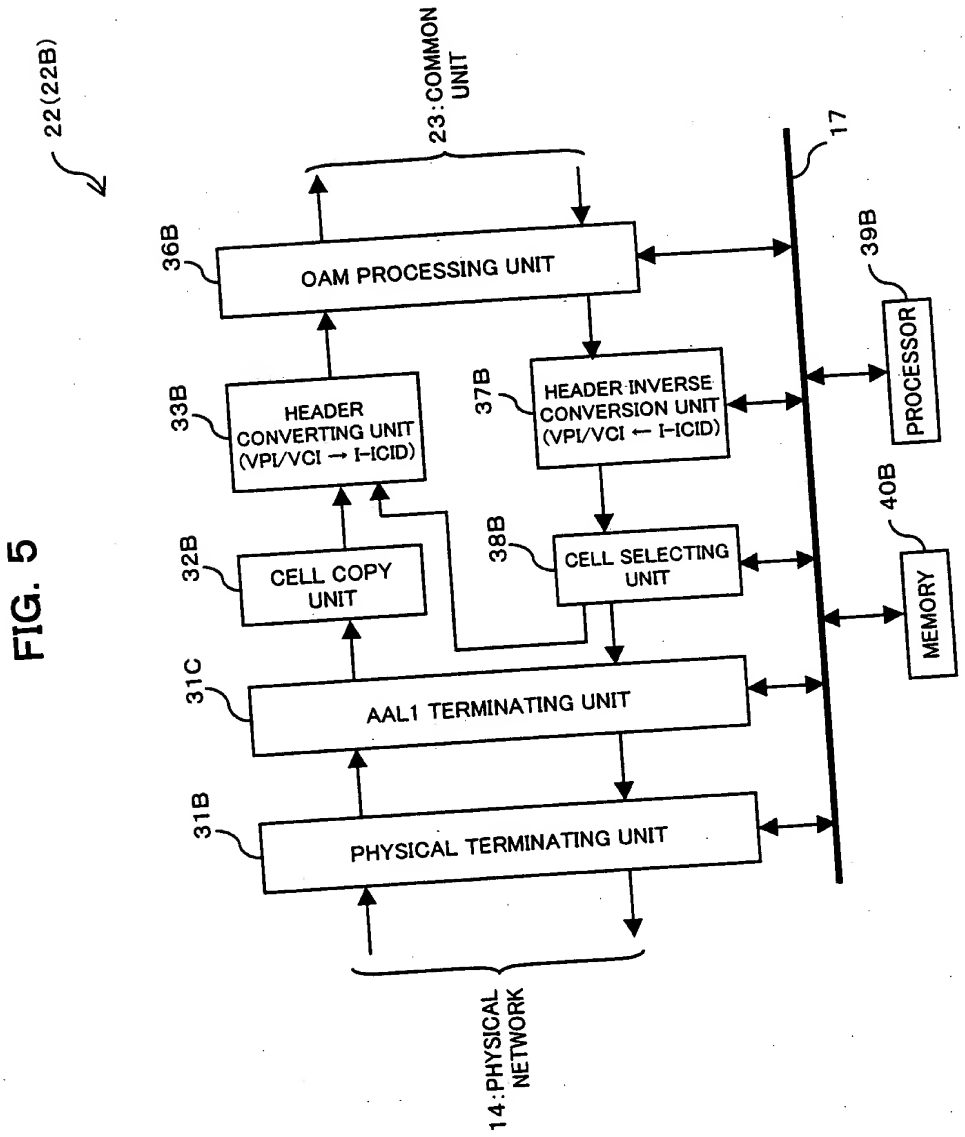

22(22B)
23:COMMON UNIT
17
36B
OAM PROCESSING UNIT
39B
PROCESSOR
33B
HEADER CONVERTING UNIT (VPI/VCI → I-ICID)
37B
HEADER INVERSE CONVERSION UNIT (VPI/VCI ← I-ICID)
32B
CELL COPY UNIT
38B
CELL SELECTING UNIT
40B
MEMORY
31C
AAL1 TERMINATING UNIT
31B
PHYSICAL TERMINATING UNIT
14:PHYSICAL NETWORK

FIG. 6

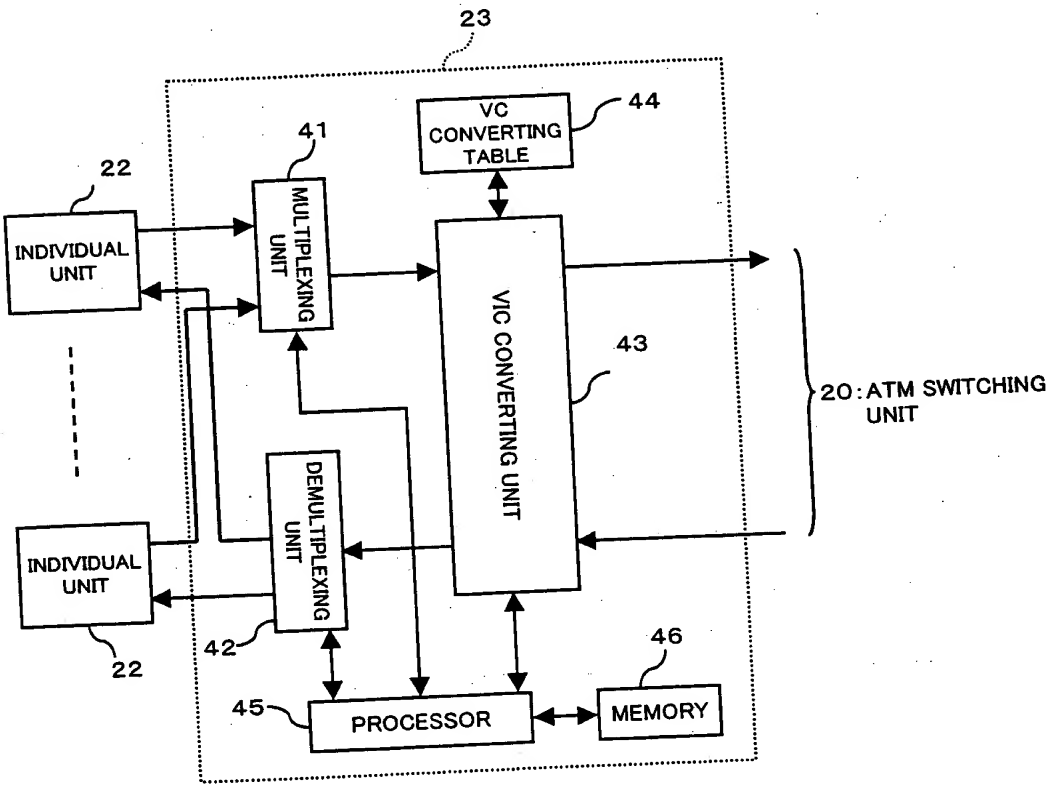

23
VC CONVERTING TABLE
44
41
22
INDIVIDUAL UNIT
MULTIPLEXING UNIT
VIC CONVERTING UNIT
43
20: ATM SWITCHING UNIT
INDIVIDUAL UNIT
DEMULTIPLEXING UNIT
42
22
46
45
PROCESSOR
MEMORY

FIG. 7(a)

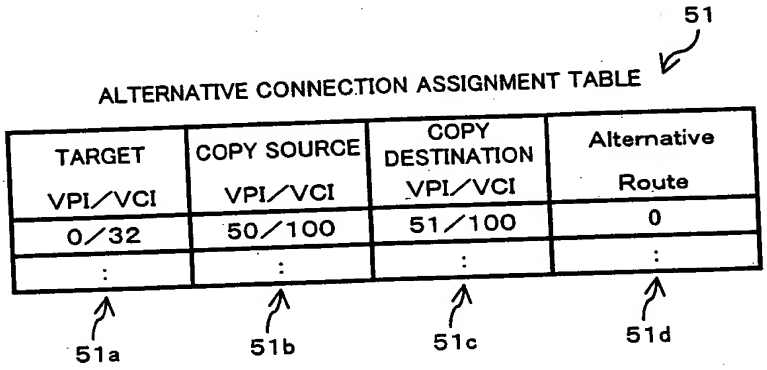

51
ALTERNATIVE CONNECTION ASSIGNMENT TABLE
TARGET VPI/VCI
COPY SOURCE VPI/VCI
COPY DESTINATION VPI/VCI
Alternative Route
0/32
50/100
51/100
0
:
:
:
:
51a
51b
51c
51d

FIG. 7(b)

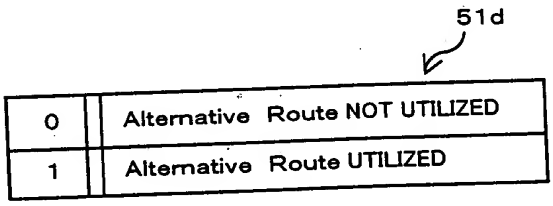

51d
0
Alternative Route NOT UTILIZED
1
Alternative Route UTILIZED

FIG. 8

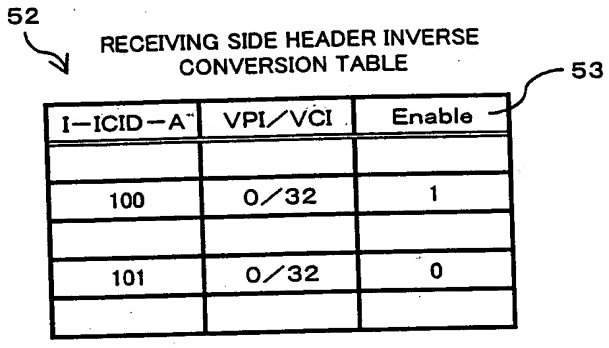

52
RECEIVING SIDE HEADER INVERSE CONVERSION TABLE
53
I-ICID-A
VPI/VCI
Enable
100
0/32
1
101
0/32
0

FIG. 9

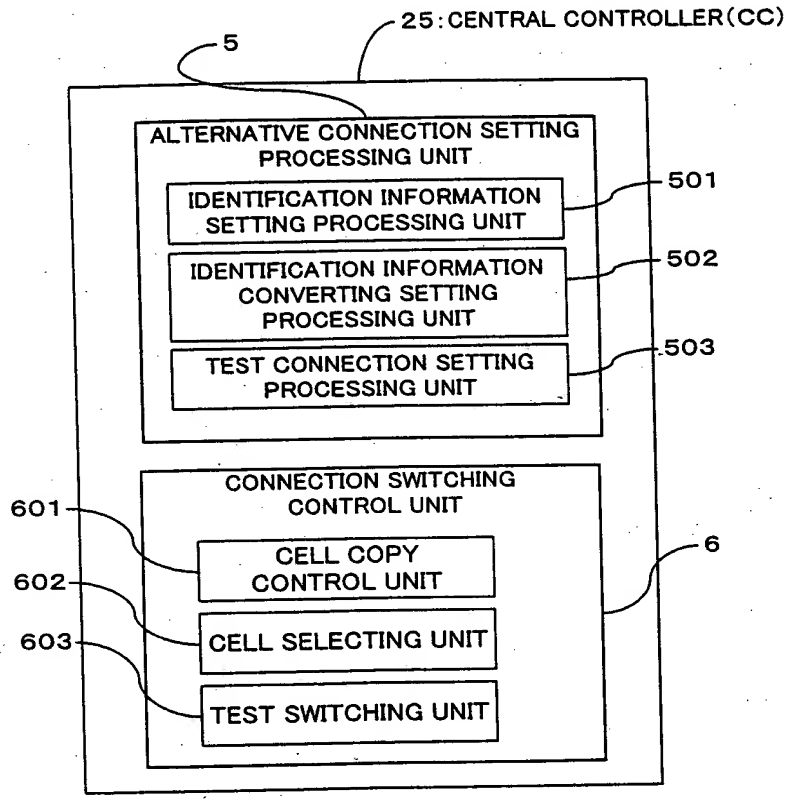
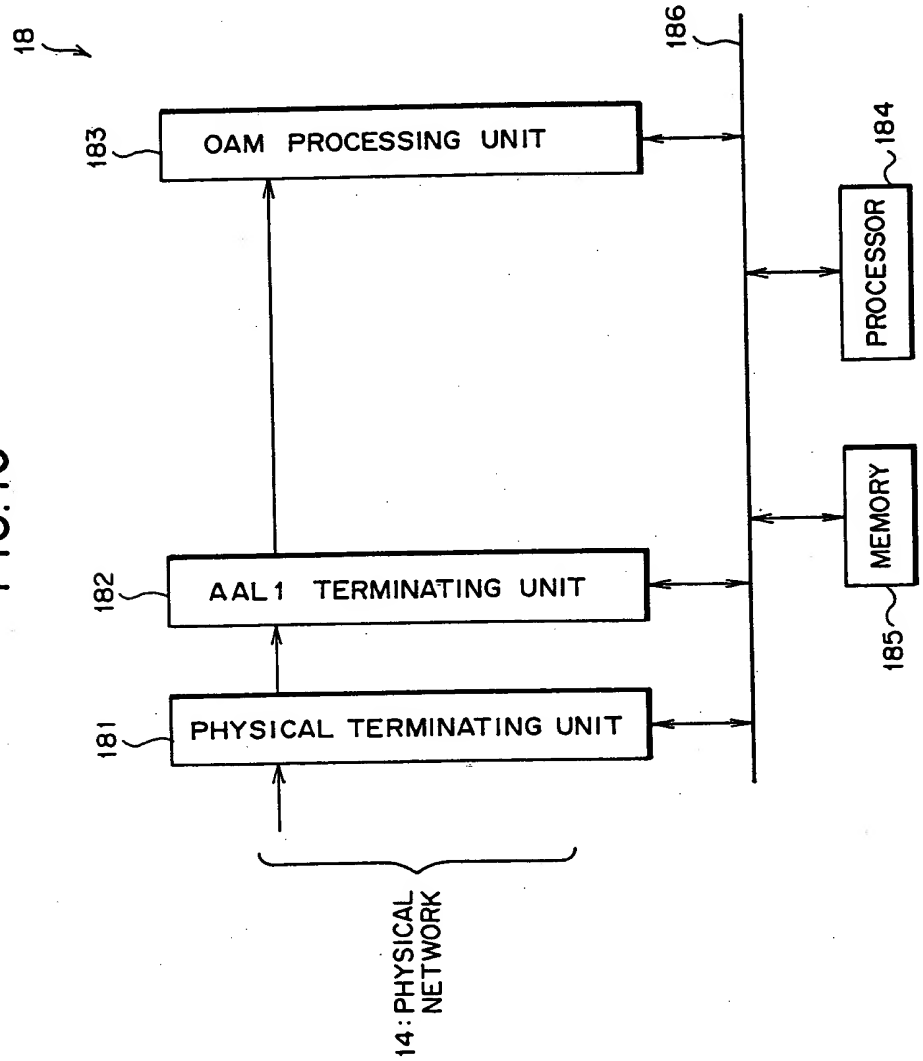

25:CENTRAL CONTROLLER(CC)
5
ALTERNATIVE CONNECTION SETTING PROCESSING UNIT
IDENTIFICATION INFORMATION SETTING PROCESSING UNIT
501
IDENTIFICATION INFORMATION CONVERTING SETTING PROCESSING UNIT
502
TEST CONNECTION SETTING PROCESSING UNIT
503
CONNECTION SWITCHING CONTROL UNIT
601
CELL COPY CONTROL UNIT
602
CELL SELECTING UNIT
603
TEST SWITCHING UNIT
6

FIG.10


18
186
183
OAM PROCESSING UNIT
184
PROCESSOR
MEMORY
185
182
AAL1 TERMINATING UNIT
181
PHYSICAL TERMINATING UNIT
14: PHYSICAL NETWORK

FOREIGN FOREIGN

FIG.11

PARAMETER	CONTENTS	NOTE
CV	CODING VIOLATION	ABOUT BIT ERROR, PRESENT OR NOT
ES	ERRORED SECOND	NUMBER OF DETECTED EVENTS OF CV, AiS AND SO ON
SES	SEVCRELY ERRORED SECOND	ERROR SUCH AS CV, AiS AND SO ON LARGER THAN ES
SAS	SEF/AiS SECOND	
AiSS	AiS SECOND	
UASP	UNAVAILABLE SECOND	

FIG. 12

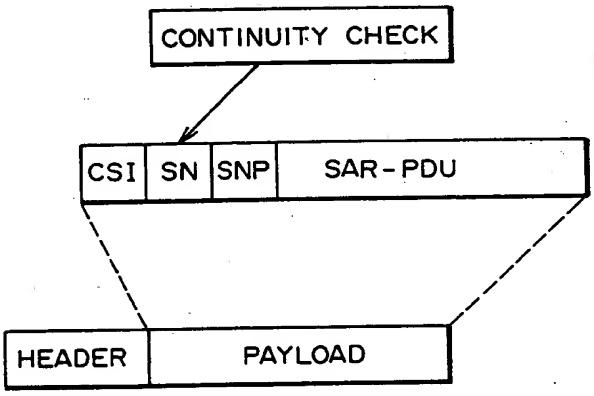


FIG.13

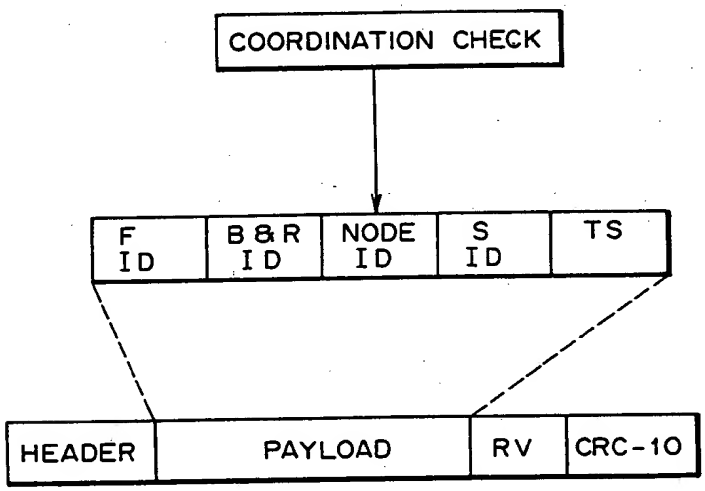

COORDINATION CHECK
F ID
B&R ID
NODE ID
S ID
TS
HEADER
PAYLOAD
RV
CRC-10

FIG.14

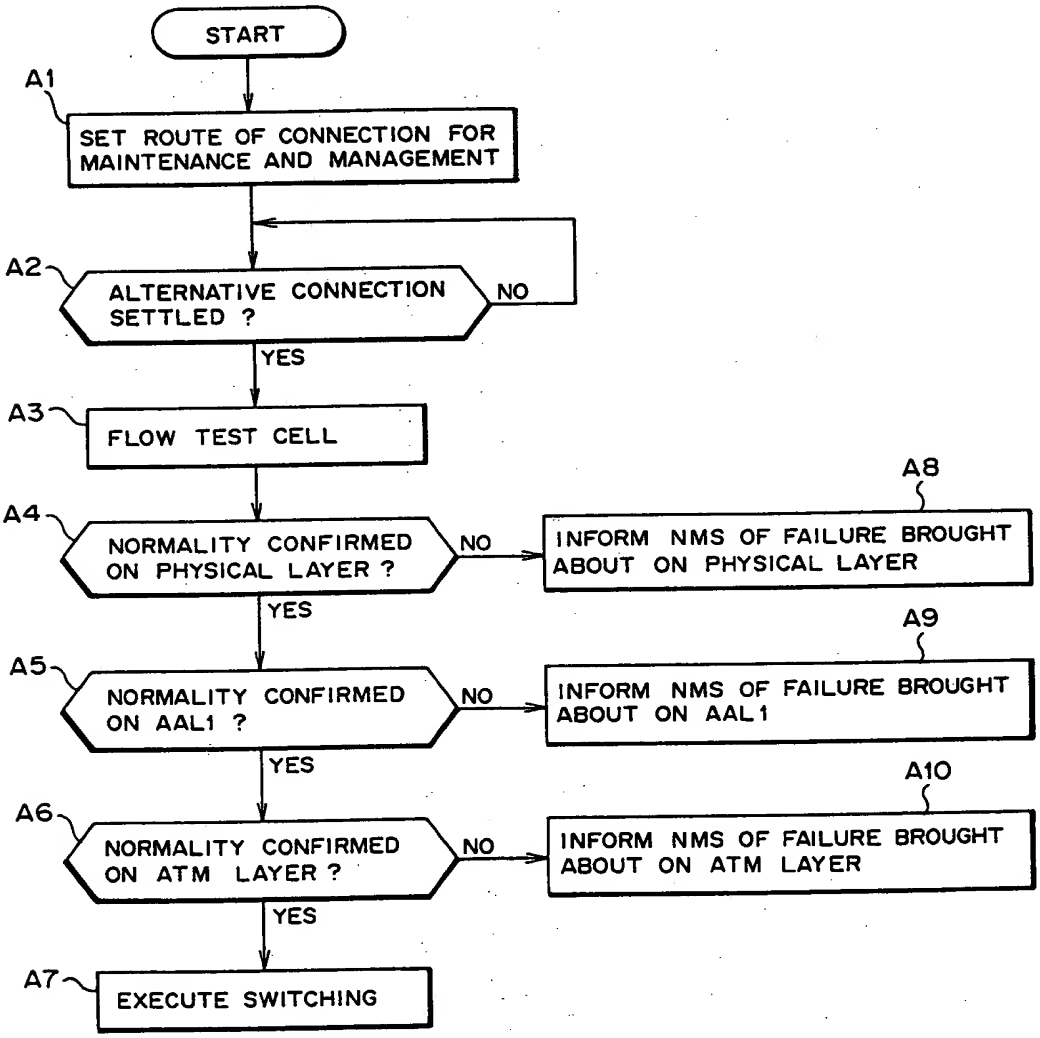

START
A1
SET ROUTE OF CONNECTION FOR MAINTENANCE AND MANAGEMENT
A2
ALTERNATIVE CONNECTION SETTLED ?
NO
YES
A3
FLOW TEST CELL
A4
NORMALITY CONFIRMED ON PHYSICAL LAYER ?
NO
A8
INFORM NMS OF FAILURE BROUGHT ABOUT ON PHYSICAL LAYER
YES
A5
NORMALITY CONFIRMED ON AAL1 ?
NO
A9
INFORM NMS OF FAILURE BROUGHT ABOUT ON AAL1
YES
A6
NORMALITY CONFIRMED ON ATM LAYER ?
NO
A10
INFORM NMS OF FAILURE BROUGHT ABOUT ON ATM LAYER
YES
A7
EXECUTE SWITCHING

FIG. 15

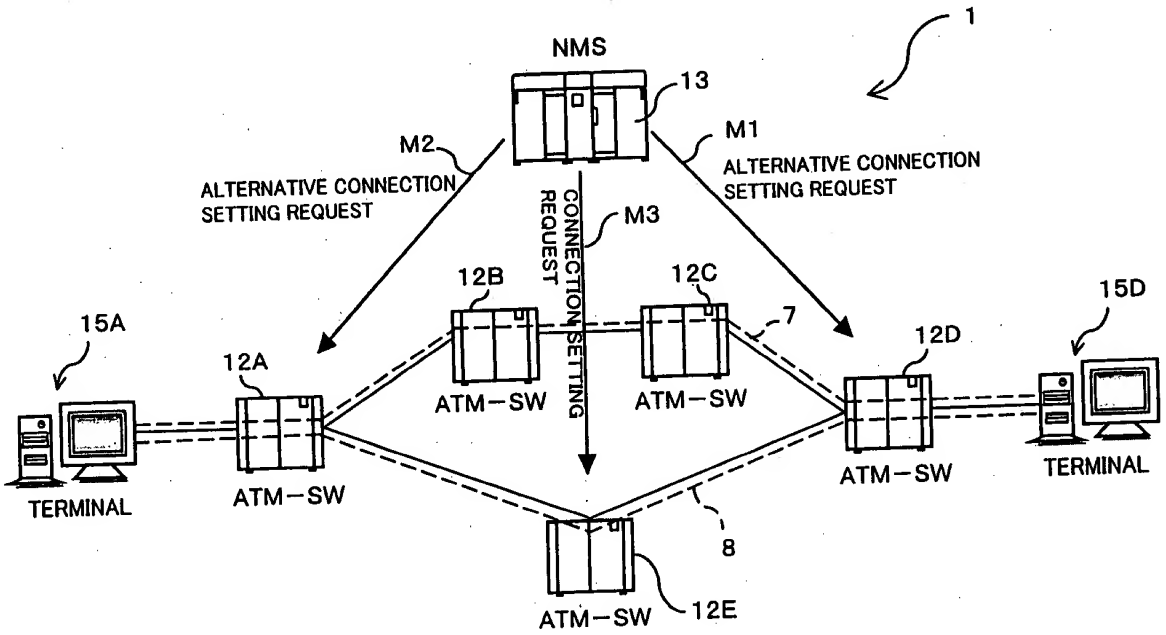
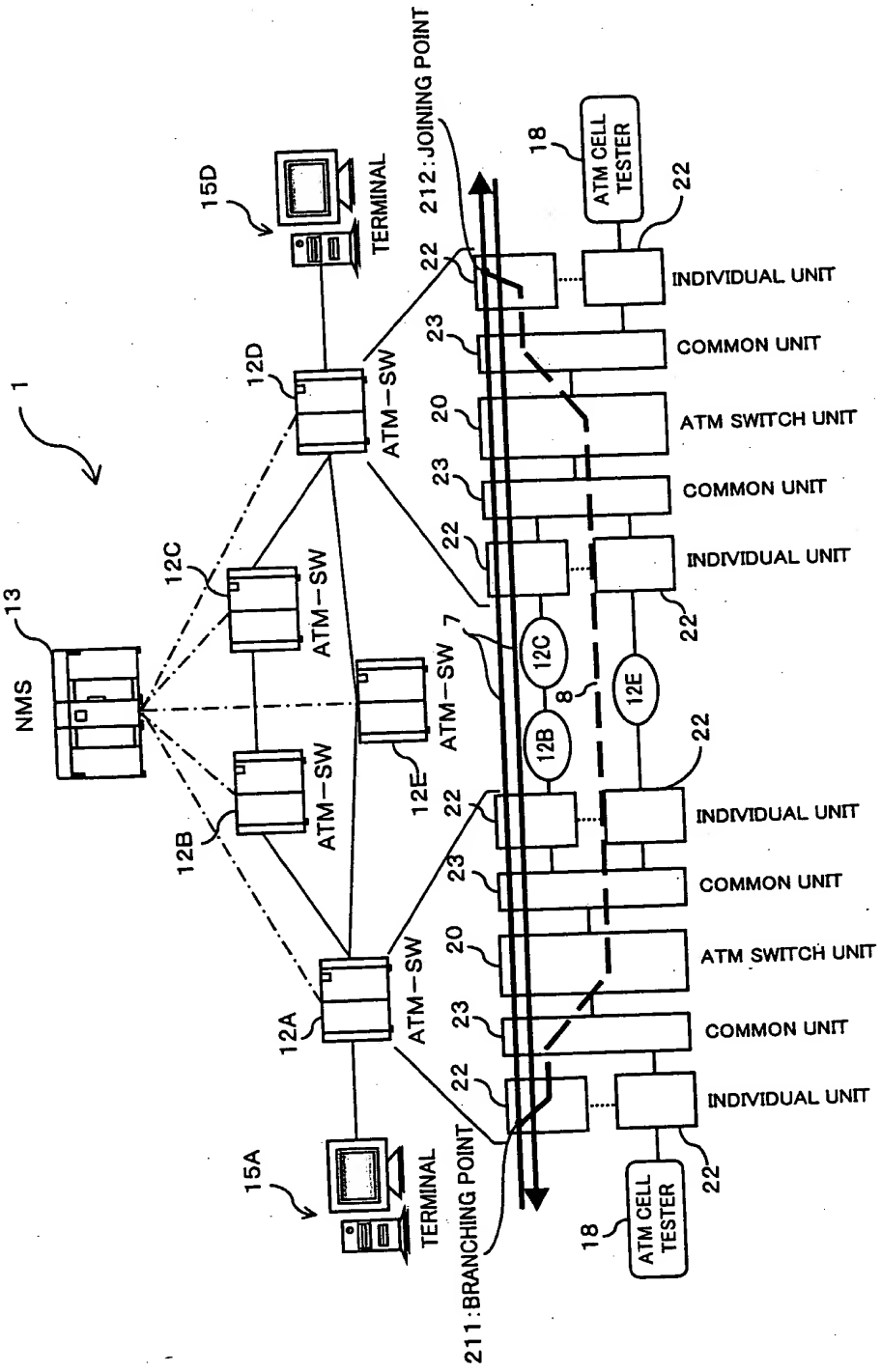
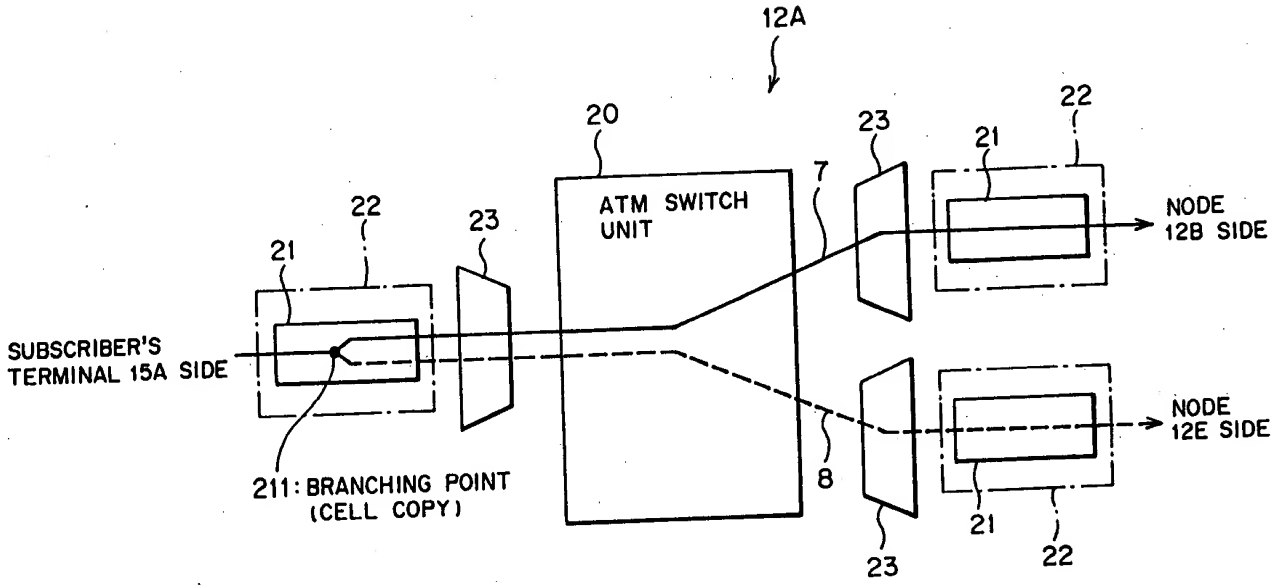

1
NMS
13
M1
ALTERNATIVE CONNECTION SETTING REQUEST
M2
ALTERNATIVE CONNECTION SETTING REQUEST
CONNECTION SETTING REQUEST
M3
12B
12C
7
15A
12A
ATM−SW
ATM−SW
12D
15D
TERMINAL
ATM−SW
TERMINAL
8
ATM−SW
12E

FIG. 16


1
NMS
13
12A
12B
12C
12D
12E
ATM-SW
15A
15D
TERMINAL
211:BRANCHING POINT
212:JOINING POINT
18
ATM CELL TESTER
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
7
8

PUNTED PUBLISHED

FIG.17



Tomed Tobbbbo

FIG.18

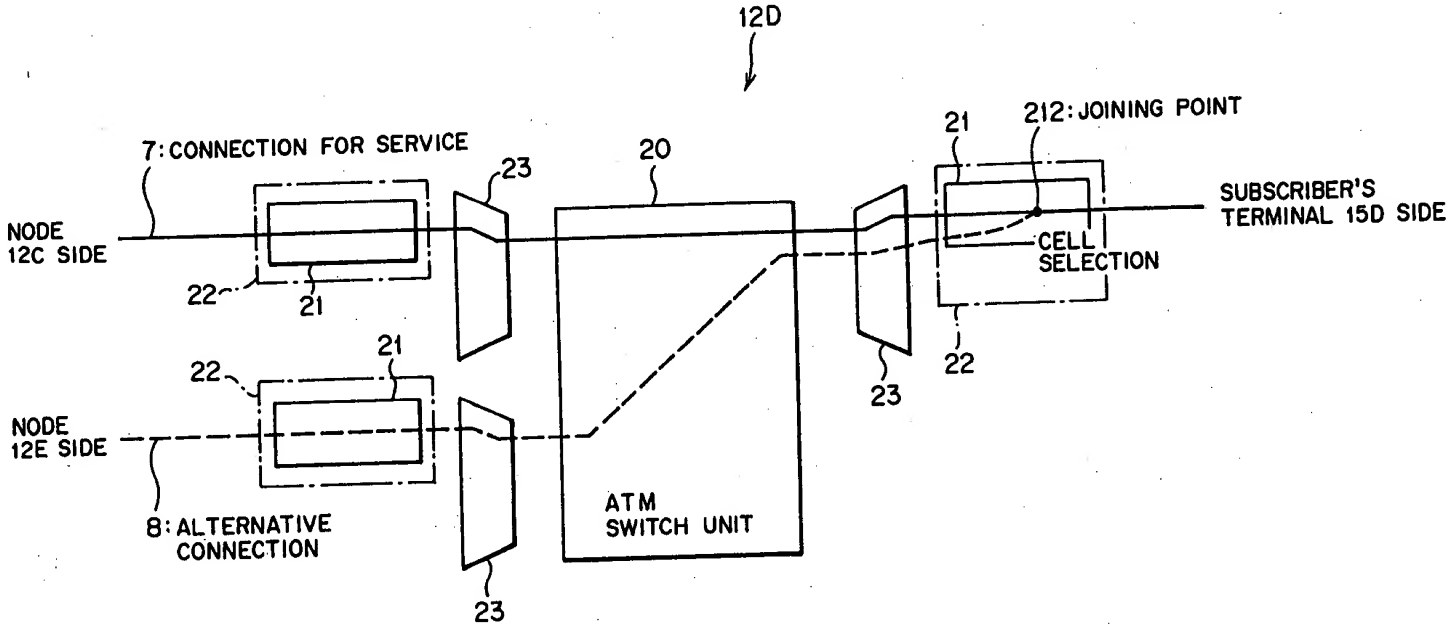


FIG. 19

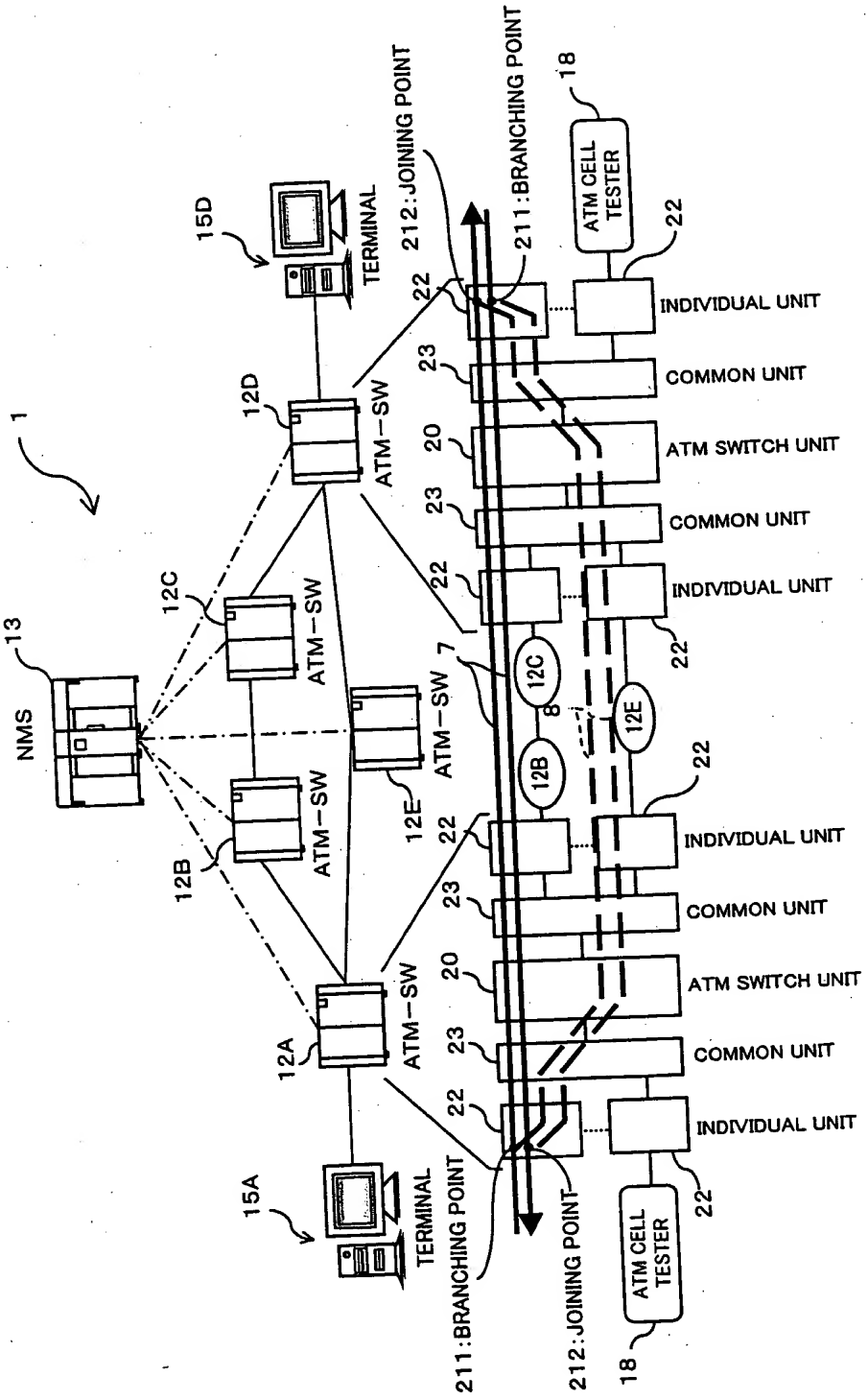
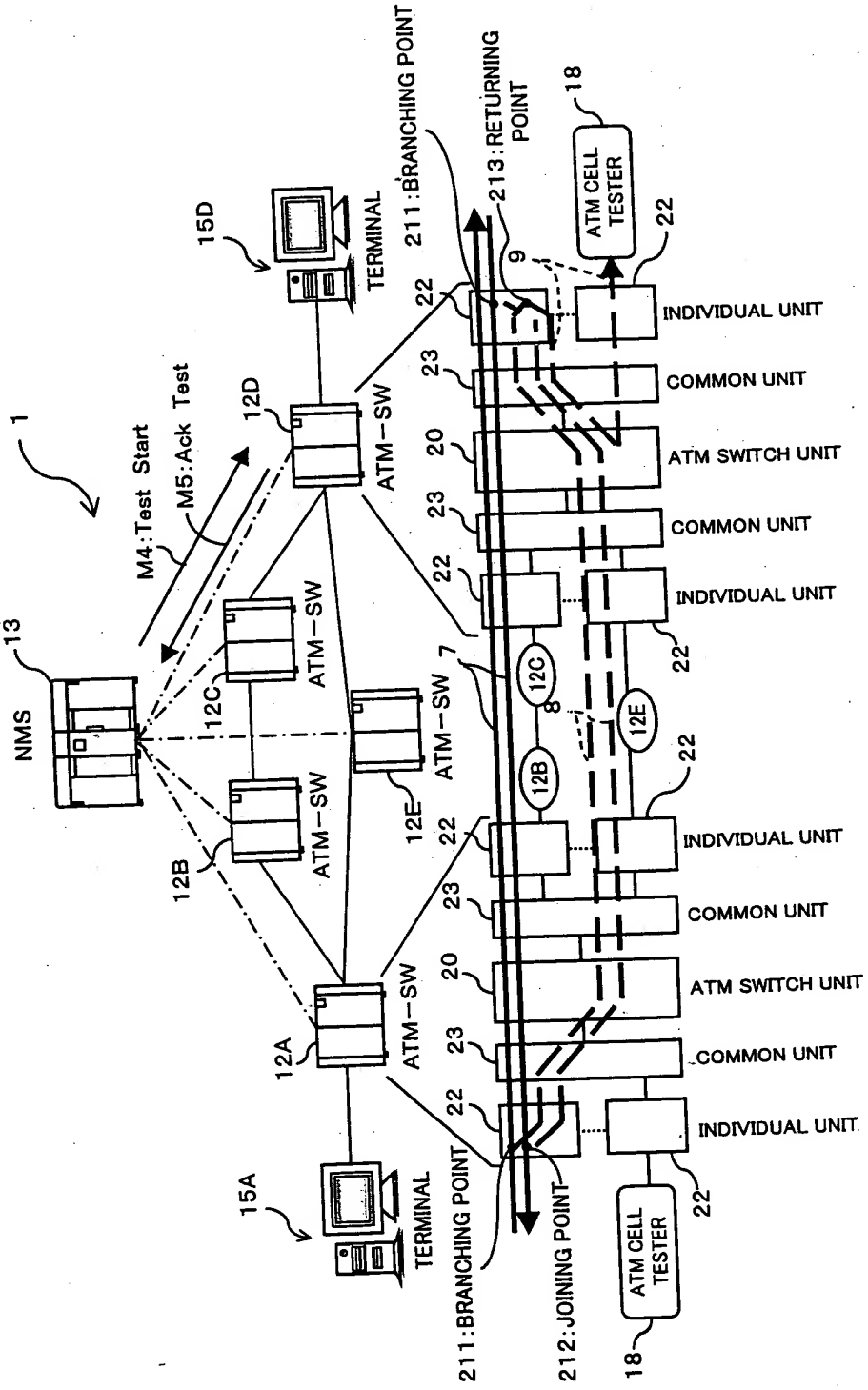

1
NMS
13
12A
12B
12C
12D
12E
ATM-SW
15A
15D
TERMINAL
211:BRANCHING POINT
212:JOINING POINT
18
ATM CELL TESTER
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
7
8

FIG. 20


1
NMS
13
M4:Test Start
M5:Ack Test
12A
12B
12C
12D
12E
ATM-SW
15A
15D
TERMINAL
211:BRANCHING POINT
213:RETURNING POINT
212:JOINING POINT
18
ATM CELL TESTER
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
9
7
8

FUNTED 1998000

FIG.21

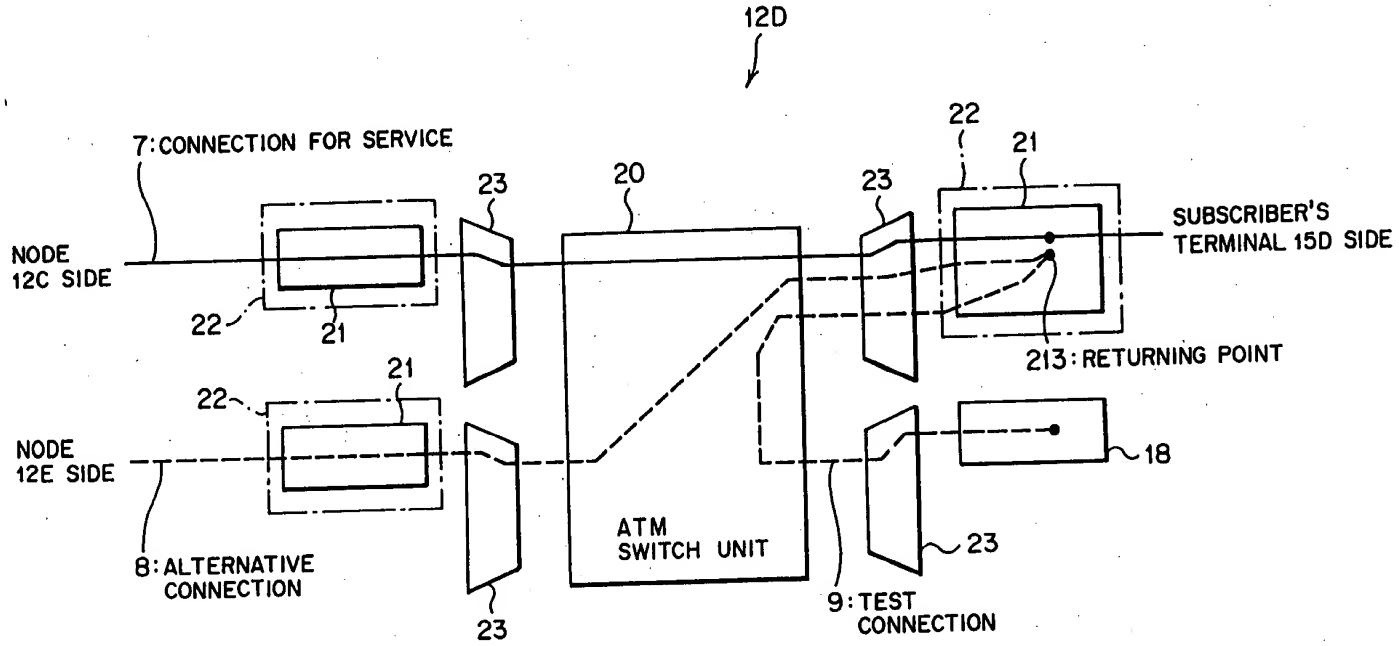


FIG. 22

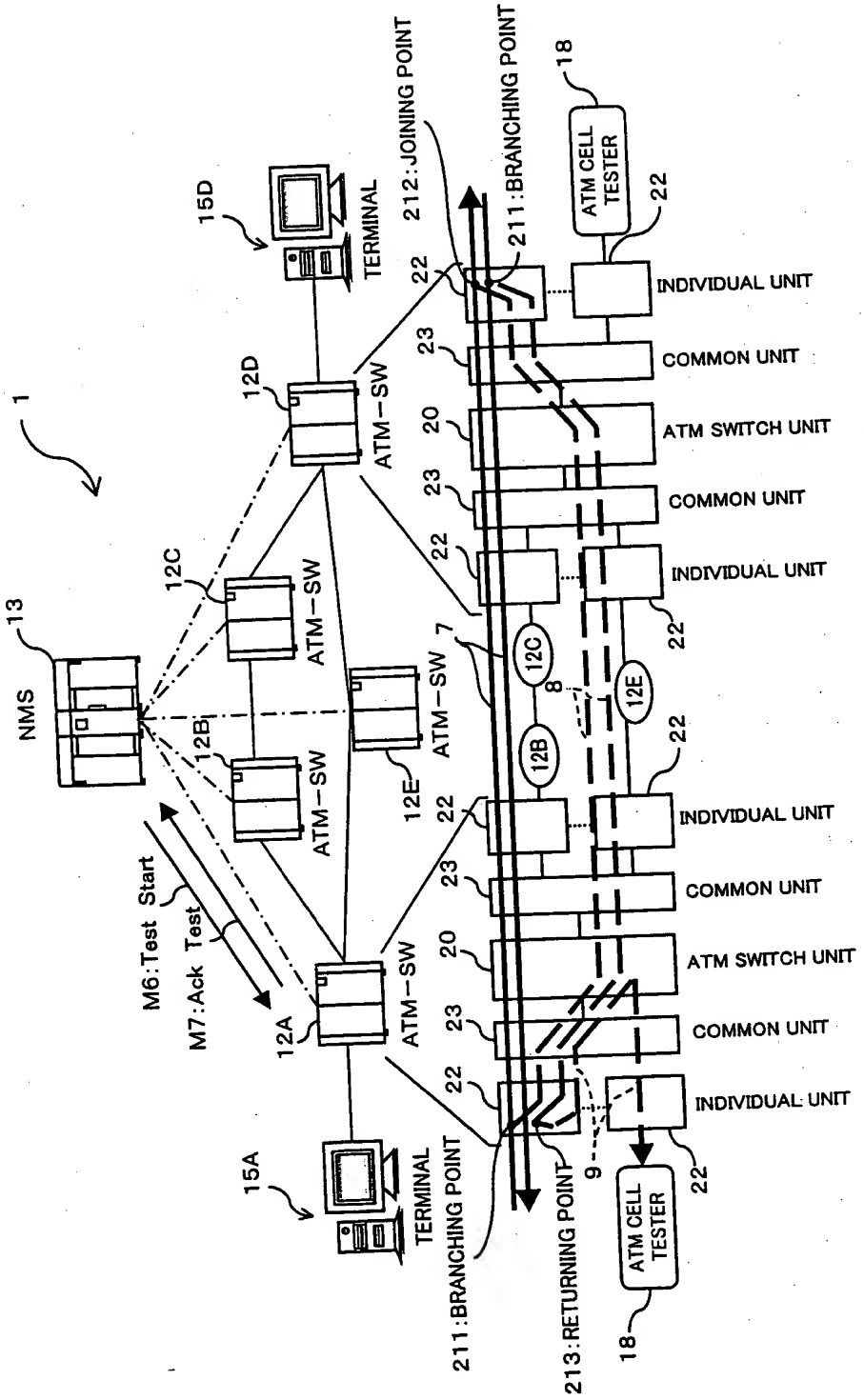

1
NMS
13
15D
TERMINAL
15A
TERMINAL
12D
12C
12B
12E
12A
ATM−SW
ATM−SW
ATM−SW
ATM−SW
ATM−SW
212:JOINING POINT
211:BRANCHING POINT
211:BRANCHING POINT
213:RETURNING POINT
M6:Test Start
M7:Ack Test
ATM CELL TESTER
ATM CELL TESTER
18
18
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
23
COMMON UNIT
22
INDIVIDUAL UNIT
7
8
9
12C
12B
12E
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
23
COMMON UNIT
22
INDIVIDUAL UNIT
22

FIG. 23

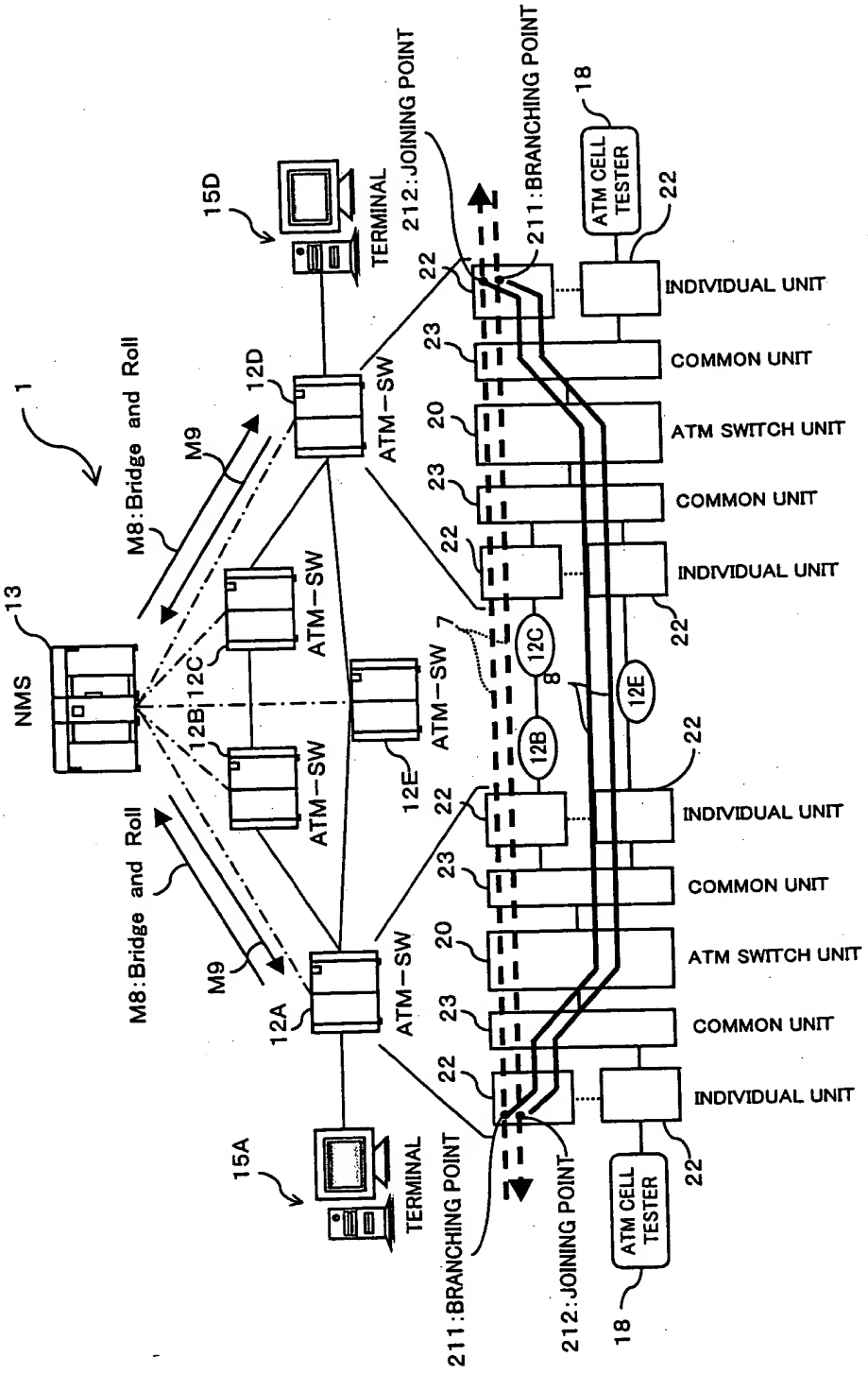

1
NMS
13
M8:Bridge and Roll
M9
M8:Bridge and Roll
M9
12A
12B
12C
12D
12E
ATM−SW
ATM−SW
ATM−SW
ATM−SW
ATM−SW
15A
15D
TERMINAL
TERMINAL
211:BRANCHING POINT
212:JOINING POINT
211:BRANCHING POINT
212:JOINING POINT
18
18
ATM CELL TESTER
ATM CELL TESTER
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
23
COMMON UNIT
22
INDIVIDUAL UNIT
7
8
12C
12B
12E
22
INDIVIDUAL UNIT
23
COMMON UNIT
20
ATM SWITCH UNIT
23
COMMON UNIT
22
INDIVIDUAL UNIT

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FIG. 24

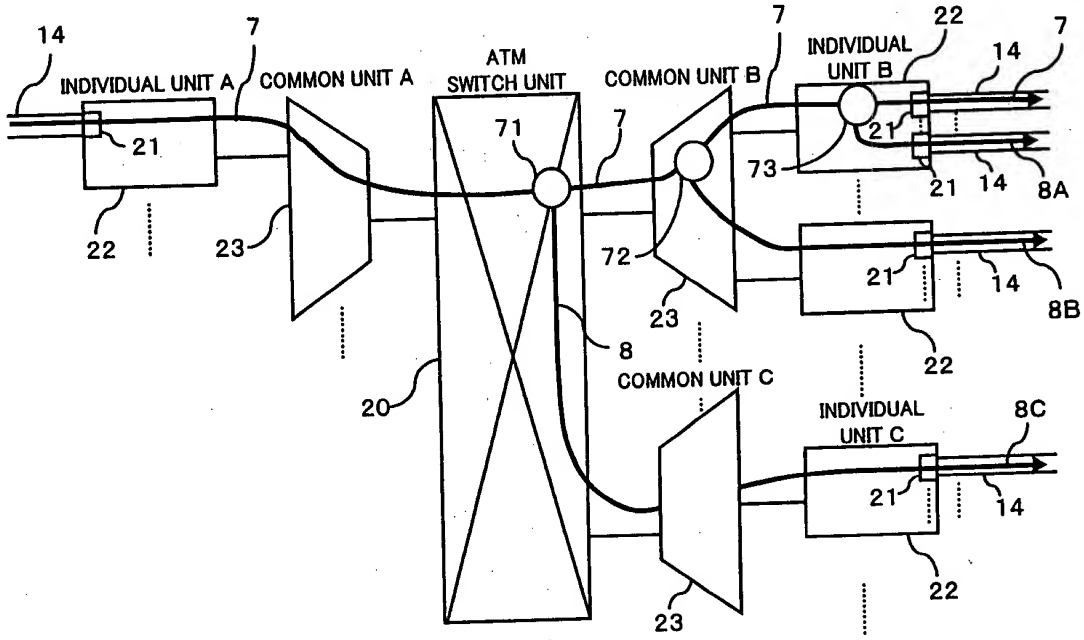

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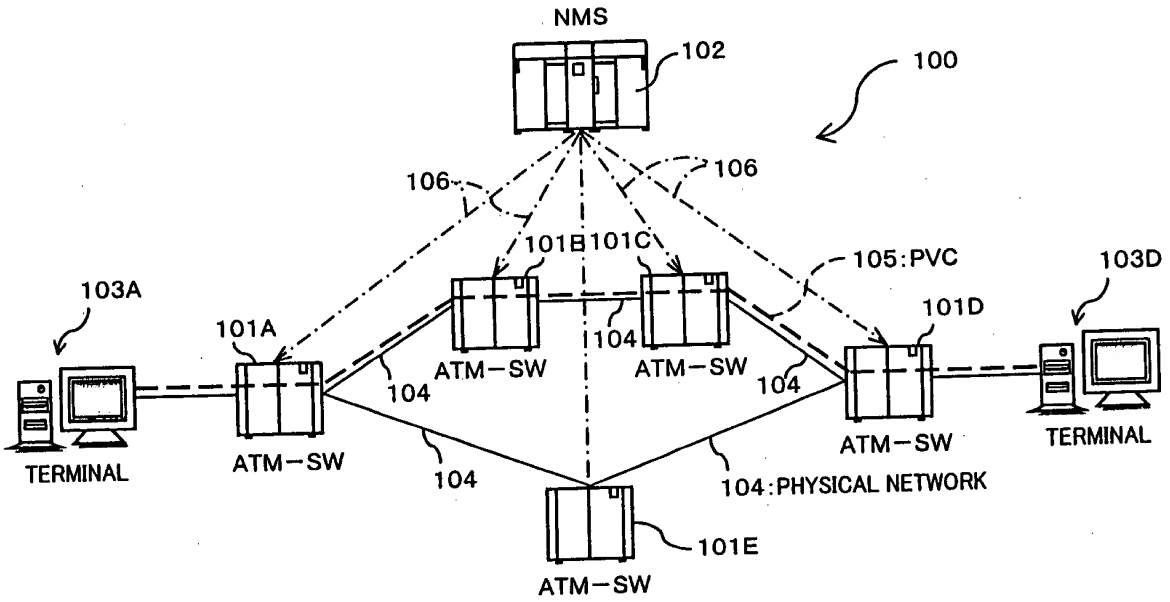
FIG. 25



Tokyo 10060860

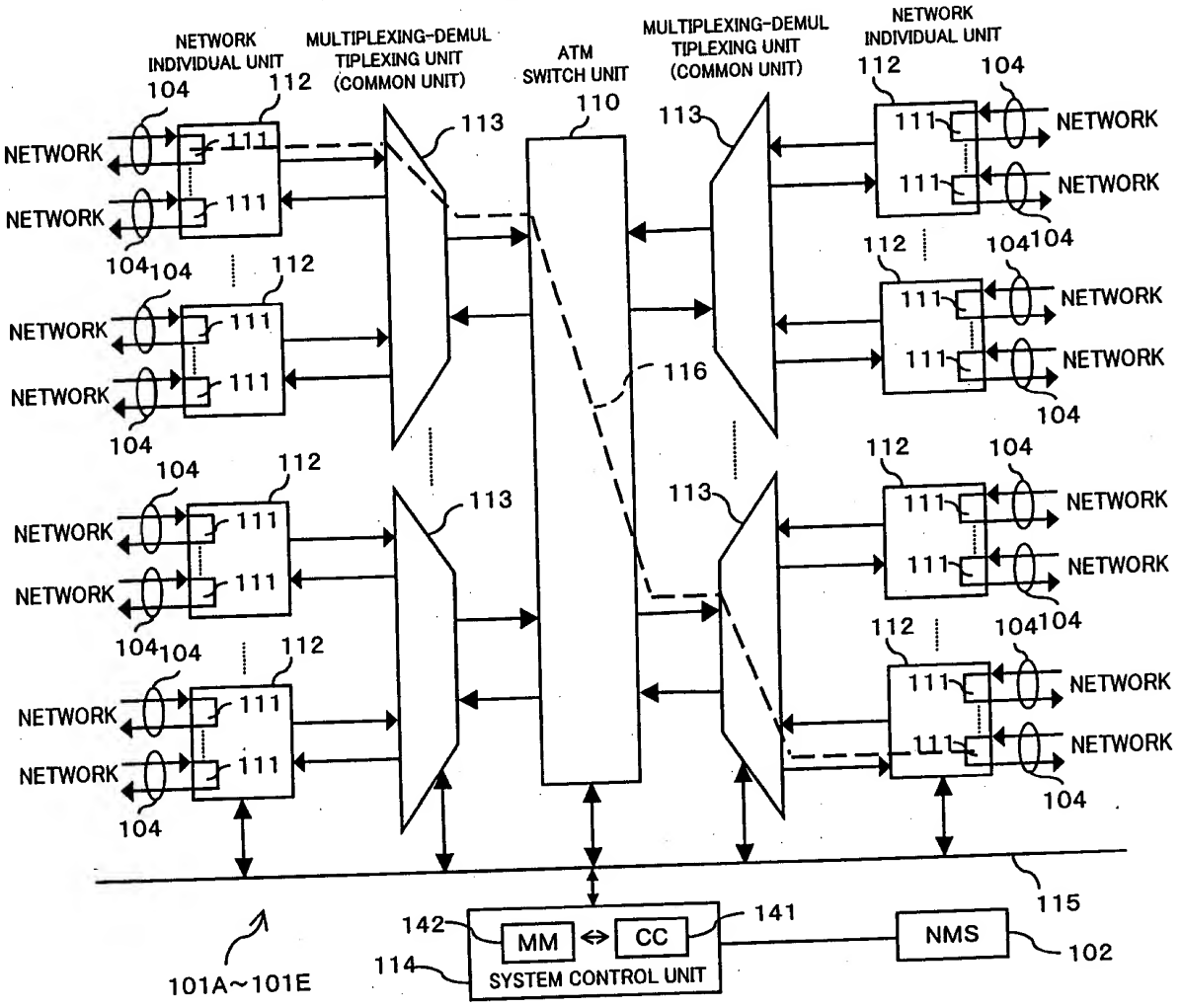



FIG. 26